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# WATER POLLUTION

## EPA Budget Needs to Place Greater Emphasis on Controlling Nonpoint Source Pollution

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Mr. Chairman and Members of the Committee:

We appreciate the opportunity to present our findings from our report on problems inhibiting state and local efforts to control pollution from nonpoint sources--that is; pollution from diffuse sources, such as farming, rather than from a single, specific point.<sup>1</sup> That report examined (1) the barriers that may be inhibiting state and local nonpoint control efforts, particularly federal programs contributing to the problem and (2) actions the Environmental Protection Agency (EPA) can take to better focus federal efforts on reducing nonpoint source pollution. We also want to discuss EPA's efforts during the fiscal year 1992 budget process to realign its water quality priorities to better address nonpoint source pollution, and offer observations about the agency's proposed water quality budget for fiscal year 1993.

In summary, Mr. Chairman, our report concluded that several major barriers impede state and local government efforts to deal with nonpoint source pollution: (1) inherent conflicts between some federal agencies' missions and states' water quality goals, (2) insufficient monitoring data on the scope and impact of the problem and the effectiveness of potential solutions, (3) insufficient technical information for the states to set state water quality standards for nonpoint source pollution, (4) limited resources available to state and local governments in comparison with the magnitude of the problem, and (5) political sensitivities over the control of local land uses that indirectly cause water pollution.

To deal with these issues, EPA developed an ambitious 5-year agenda for fiscal years 1989 through 1993. However, as we near 1993, major portions of that agenda remain largely unfulfilled. Resource constraints have been an underlying problem, as they are in many other EPA programs. In this case, however, we believe that the limited resources allocated to EPA's activities to control nonpoint source pollution reflect an inappropriate emphasis on point source activities at the expense of nonpoint activities. We base our belief on EPA's own findings suggesting that the risks posed by nonpoint source pollution are generally more serious than those posed by point source discharges. As was the case with the administration's budget proposal for EPA for fiscal year 1992, the fiscal year 1993 budget proposal would further increase this imbalance by reducing funding for key nonpoint source pollution activities.

Before discussing our findings in more detail, I would like to briefly provide some background about nonpoint source pollution in the United States and EPA's role under the Clean Water Act.

<sup>1</sup>Water Pollution: Greater EPA Leadership Needed to Reduce Nonpoint Source Pollution (GAO/RCED-91-10, Oct. 15, 1990).

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## BACKGROUND

Although significant efforts have been made to restore the quality of the nation's waters since the Clean Water Act's passage in 1972, many are still heavily polluted. Moreover, in recent years, concern has increased over the toxicity and potential health effects of many of the contaminants in these waters. According to EPA, the nation's remaining water quality problems are largely attributable to pollution from nonpoint sources.

Nonpoint source pollution is the by-product of a variety of land use practices, including farming, timber harvesting, mining and construction. It also results when rain washes pollutants in urban areas into storm drains (referred to as urban runoff). Agriculture accounts for the largest share of the nation's nonpoint source pollution problem, affecting about 50 to 70 percent of assessed waters through soil erosion from croplands and overgrazing and runoff of pesticides and fertilizers.

The way individuals use land can substantially affect the amount of nonpoint source pollution runoff. For example, even though some soil naturally erodes from undisturbed land, erosion can increase enormously if the trees are cut or the land is farmed.

As a result of political sensitivity over land use issues, coupled with the decentralized nature of the problem, the Congress has historically been reluctant to allow the federal government to deal directly with nonpoint source pollution. The 1972 act, for example, required state and local governments to identify the extent of nonpoint source pollution in their areas, as well as ways to control it. However, the act did not provide any funds for implementing controls, nor did it authorize EPA to regulate activities that generate nonpoint source pollution.

The Congress expanded EPA's role somewhat through the 1987 amendments to the Clean Water Act--called the Water Quality Act of 1987--but still left primary responsibility for controlling nonpoint source pollution with the states. Section 319 of the Clean Water Act, as added by the Water Quality Act, required states to (1) assess the extent to which nonpoint sources cause water quality problems and (2) develop management program plans for addressing these problems. EPA was charged with reviewing and approving these assessments and plans, and was authorized to provide grants to the states for implementing these management plans.

## BARRIERS IMPEDE STATE EFFORTS TO CONTROL NONPOINT SOURCE POLLUTION

As our work in six states and our discussions with federal officials and representatives of environmental organizations

showed, in some cases, federal policies and activities act as barriers to state and local efforts to control nonpoint source pollution. In other cases, we found that federal activities may not directly impede state and local nonpoint source control efforts. However, in a number of these instances, EPA and other agencies are missing opportunities to help state and local governments control nonpoint source pollution.

The following key barriers impede state and local efforts to control nonpoint source pollution:

- Federal agencies sometimes pursue their primary missions in ways that inadvertently conflict with the Clean Water Act's objective to protect and restore the quality of the nation's waters. In particular, U.S. Department of Agriculture (USDA) has historically conducted significant programs and activities that involve--and even promote--increased nonpoint source pollution. For example, USDA's commodity price and income support programs encourage farming practices that contribute to soil erosion and nonpoint source pollution. As we have noted in several past reports, USDA's policies have encouraged specialization in program crops year after year and promoted farming practices that may increase the need for agrichemicals, including synthetic fertilizers and pesticides.<sup>2</sup> Other agencies whose activities significantly affect nonpoint source pollution control efforts include the Department of the Interior, which regulates mining activities, and the Department of Transportation, which funds highway construction projects.
- Vital monitoring data are often missing on both the scope and the impact of nonpoint source pollution and on the effectiveness of potential solutions. Without scope and impact data, public officials have had difficulty reallocating resources to deal with the most serious problems and convincing landowners of the need for action. Similarly, according to federal and state officials, basic monitoring data, which are needed to identify the cause of the problem and to evaluate the effectiveness of alternative actions to control it, are generally not being developed.
- States need technical information from EPA called "criteria" to help them set state water quality standards. These standards are essential to identify at what

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<sup>2</sup>For example, see Alternative Agriculture: Federal Incentives and Farmers' Opinions (GAO/PEMD-90-12, Feb. 16, 1990) and Agriculture: USDA Needs to Better Focus Its Water Quality Responsibilities (GAO/RCED-90-162, July 23, 1990).

concentration a pollutant becomes a problem. States particularly require information to develop adequate standards for protecting groundwater because no federal program currently provides this information.

- The cost of controlling nonpoint source pollution far exceeds available resources. Although some states have allocated millions of dollars to address the problem, they maintain that billions are required to correct it. For example, Pennsylvania, with 1,701 stream miles polluted by acid mine drainage from abandoned coal mines, estimated that the cost to address just the drainage from these mines would be between \$3 billion and \$5 billion.
- Political sensitivity over land use regulations has been one of the most difficult barriers for states to overcome in dealing with nonpoint source pollution. Land use practices and patterns of millions of property owners and others are often the root cause of nonpoint source pollution. The solution lies in preventing certain land uses or ensuring that land is used in an environmentally acceptable way. Dealing with this sensitive issue, though, requires a reorientation of basic values that have often placed private property rights above other considerations--such as the unintended impact of certain land uses on water quality.

#### LOW FUNDING LEAVES EPA GOALS UNFULFILLED

As the nation's lead environmental organization primarily responsible for implementing the Clean Water Act, EPA is in a singular position to assume a principal role in coping with the problem. EPA acknowledged this responsibility in its Nonpoint Sources: Agenda for the Future, published in January 1989, which presented an ambitious plan for EPA to deal with nonpoint source pollution for fiscal years 1989 through 1993. EPA declared that its goal was to provide strong leadership for the national nonpoint pollution control program and to help states and local governments overcome barriers to the successful implementation of control measures.

Nevertheless, EPA's agenda has been and will continue to be unfulfilled if the agency remains on its present course. Resource constraints are a fundamental problem, as they are in many environmental programs. For example, EPA's agenda identifies the importance of EPA's role in developing a stronger partnership with other federal agencies and in ensuring that federal regulatory requirements are imposed in a way that aids states in implementing their nonpoint source control programs. While EPA has made at least some progress in this respect with USDA, resource constraints have prevented it from taking similar measures with numerous other

agencies whose activities affect water quality. According to officials in EPA's Office of Water, severe limitations on staff and resources have also restricted EPA's efforts to develop better techniques for monitoring nonpoint source pollution, help states develop water quality standards, and perform other critical functions identified in the agency's agenda.

#### LOW FUNDING PRIORITY IS INCONSISTENT WITH ENVIRONMENTAL RISK

Because of limited budgetary resources, it is important that the environmental risks posed by different kinds of pollution problems be considered in funding decisions. However, EPA's water quality budget priorities have been consistently and overwhelmingly oriented towards point source problems.

In an August 1989 report assessing the comparative risks posed by different kinds of pollution problems, three EPA regions analyzed 18 to 24 of the most important environmental problems facing each region.<sup>3</sup> Each region then ranked each problem in terms of its relative health and ecological risk. According to the report, ecological risks posed by nonpoint source pollution are substantially more serious than those posed by pollution from point sources, and the health risks are roughly comparable.

In a similar analysis, EPA's Science Advisory Board also noted that nonpoint sources contributed to impairment of beneficial uses in many more miles of streams than did point sources. The Board noted in its September 1990 report that EPA needed to do a better job of reflecting risk-based priorities in its planning and budget processes.<sup>4</sup>

Despite these findings, however, EPA's budget priorities in water pollution control have consistently been oriented overwhelmingly toward point source pollution problems. As part of our 1990 report, for example, we performed an analysis of EPA's fiscal year 1990 water quality budget and found that less than 6 percent of the funding that year for the agency's point source- and nonpoint source-related water pollution control activities were devoted to nonpoint-related activities. Moreover, we observed in the report that EPA had requested only \$22 million out of the \$400 million authorized in the Clean Water Act for funding under section 319 for the period of fiscal years 1988 through 1991. (See appendix I.)

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<sup>3</sup>Comparing Risks and Setting Environmental Priorities, EPA, (Washington, D.C.: Aug. 1989).

<sup>4</sup>Reducing Risk: Setting Priorities and Strategies for Environmental Protection, EPA's Science Advisory Board, (Washington, D.C.: Sept. 1990)



RECENT BUDGET REQUESTS CONTINUE EPA'S LOW  
PRIORITY FOR NONPOINT SOURCE POLLUTION

To help correct this funding imbalance, our October 1990 report recommended that EPA identify appropriate funding levels that better reflect the risks posed by nonpoint source pollution, and that would allow the agency to pursue key elements of an effective nonpoint source agenda. We emphasized that we were not seeking a wholesale revision in the agency's water quality budget--one strictly in line with perceived environmental risk--but rather a shift in priorities. We noted that such a shift in priorities could go a long way toward helping EPA to implement its agenda and thereby assist state and local programs in the control of nonpoint source pollution. Nevertheless, the administration proposed in its EPA budget request for fiscal year 1992--and has again proposed for fiscal year 1993--to increase the funding imbalance.

Fiscal Year 1992 Budget Request

As we observed in testimony last year before the House Subcommittee on Investigations and Oversight, Committee on Public Works and Transportation,<sup>5</sup> despite the compelling rationale for assigning nonpoint source pollution control a higher priority, the administration requested in its fiscal year 1992 budget proposal a 50 percent cut in the section 319 grant funds for the states. The cut would have reduced the \$51 million appropriated the previous year by \$26 million. In its budget justification, EPA said that "the decrease is based on the fact that local government land use decisions and agricultural practices cause most [nonpoint source pollution]" and that "it is inappropriate for the Federal Government to involve itself too heavily in these local responsibilities."

We noted, however, that state and local governments had indicated that while EPA should not become involved in local land use decisions, they still need EPA's technical and financial assistance in their efforts to control nonpoint source pollution. We noted, too, that in addition to providing states with little assistance in moving forward with their own programs, EPA's budget request would have also made it extremely difficult for the agency to fulfill its own responsibilities under its nonpoint source agenda, such as developing monitoring techniques and information the states need to develop water quality standards.

In subsequent testimony at the same hearing, EPA agreed with our assessment that funds should be shifted from point source to

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<sup>5</sup>Greater EPA Leadership Needed to Reduce Nonpoint Source Pollution (GAO/T-RCED-91-34). GAO also testified on these issues on June 5, 1991, before the House Subcommittee on Environment, Committee on Science, Space, and Technology.

nonpoint source activities. In its prepared statement, EPA cited the Science Advisory Board's conclusions that

"there are heavy costs involved if society fails to set environmental priorities based on risk. If finite resources are expended on lower priority problems at the expense of high priority risks, then society will face needlessly high risk."

EPA went on to say that "Nonpoint source control efforts, therefore, must continue to receive priority attention in our programs and budgets" and that both "EPA and the states [need to] increase our levels of staff support for the nonpoint source program in light of the importance of nonpoint source pollution as a primary cause of the nation's remaining water quality problems." Ultimately, the Congress restored fiscal year 1992 funding for the section 319 program to approximately the same level as the previous year--\$52.5 million.

#### Fiscal Year 1993 Budget Request

The consensus achieved during the consideration of the fiscal year 1992 budget, however, was short-lived. Rather than departing from the agency's past practice of deemphasizing nonpoint source pollution, the administration's budget proposal for EPA for fiscal year 1993 once again cut section 319 grants by 50 percent from the funding level appropriated in fiscal year 1992. The budget proposal cites the same rationale as it did in the previous year, noting that "local government land use decisions and agricultural practices cause most NPS [nonpoint source] pollution" and that it is "inappropriate for the Federal government to involve itself too heavily in these local responsibilities." Moreover, the administration's budget proposal for EPA also eliminates funding for the Clean Lakes program, which generally focuses on nonpoint source pollution problems.<sup>6</sup> These cuts are proposed despite the numerous new responsibilities required of coastal states--and EPA--under the 1990 amendments to the Coastal Zone Management Act that require coastal states to implement nonpoint source control programs in coastal areas. Among other responsibilities, coastal states are expected to develop plans to implement nonpoint source pollution management measures; identify land uses which contribute to coastal pollution; provide technical assistance to local governments; encourage public participation; improve coordination among state and local agencies; and develop enforcement mechanisms. EPA is to review and approve these programs in conjunction with the

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<sup>6</sup>The Clean Lakes program supports state-EPA cooperative agreements to diagnose water quality problems in lakes, perform restoration activities, and perform post-restoration monitoring. Seven million dollars was appropriated for the program during fiscal year 1992.



National Oceanic and Atmospheric Administration (NOAA). In fiscal year 1992, \$2 million was appropriated for NOAA to provide grants to the coastal states for the development and implementation of coastal nonpoint source program plans. The \$2 million represents an average of about \$69,000 for each coastal state.<sup>7</sup>

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In summary, Mr. Chairman, the magnitude and diversity of nonpoint source pollution makes it particularly difficult to control. Unless the problem is addressed, however, little progress will be made in improving the nation's water quality.

As the nation's lead environmental organization primarily responsible for implementing the Clean Water Act, EPA should be taking a leading role in helping state and local governments to deal with this problem. As we had recommended in our report, we believe EPA should accelerate its efforts to:

- resolve problems arising out of conflicts between the policies of federal agencies and water quality goals;
- develop nonpoint source pollution criteria so the states can develop and implement nonpoint source water quality standards;
- develop monitoring techniques to help states determine the extent of their nonpoint source pollution problems and the effectiveness of corrective actions; and
- develop its program to educate the public about the health and environmental impacts of nonpoint source pollution.

EPA's ambitious agenda addresses many of these goals, but that agenda stands little chance of being fulfilled because of staffing and budgetary constraints. Such constraints, while common in many environmental programs, have been exacerbated in this case by funding priorities that over-emphasize controlling point source pollution at the expense of nonpoint source pollution.

The President's budget proposals for fiscal years 1992 and 1993 afforded EPA a key opportunity to more closely align its funding with the relative risks to health and the environment. However, in light of the resource imbalance that the administration has continued to propose for EPA's water quality programs, it will once again be up to the Congress to ensure that limited funds are used more effectively in cleaning up the nation's polluted waterways.

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<sup>7</sup>Another \$2 million for state grants was requested for fiscal year 1993.

Funding under Section 319 of the Clean Water Act  
(Dollars in millions)

<u>Fiscal year</u>	<u>Authorized</u>	<u>Requested</u>	<u>Appropriated</u>
1988	\$ 70	\$ 0	\$ 0
1989	100	0	0
1990	100	7 <sup>a</sup>	38.9
1991	130	15	51
1992	<sup>b</sup>	25	52.5
1993	<sup>b</sup>	<u>26</u>	<u>          </u>
Total	<u>\$400</u>	<u>\$73</u>	<u>\$142.4</u>

<sup>a</sup>In fiscal year 1990, the President's budget requested \$7 million under another section of the act for the states to implement their management plans under section 319.

<sup>b</sup>Authorizations in section 319 were only provided through fiscal year 1991. However, appropriations, in some cases, may carry their own authorizations.

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